

## CHAPTER III

# THE SYSTEMATIC APPROACH TO URBAN PLANNING

---

When Ford, Goodrich (and Bartholomew) approached the preparation of the comprehensive plan for Newark, in Bartholomew's words: ". . . it was new to everyone, and we were groping." (1) It was Harland Bartholomew's purpose to remove this "groping" and to introduce "science" into city planning.

### TWO PROBLEMS

The major concern of urban planning was with the physical, the layout and arrangements of the physical things that comprise the city--the streets, buildings, utilities, transportation arteries and terminals, schools, and parks that make up the physical pattern. The comprehensive plan has been described as the scheme of arrangement for these things.

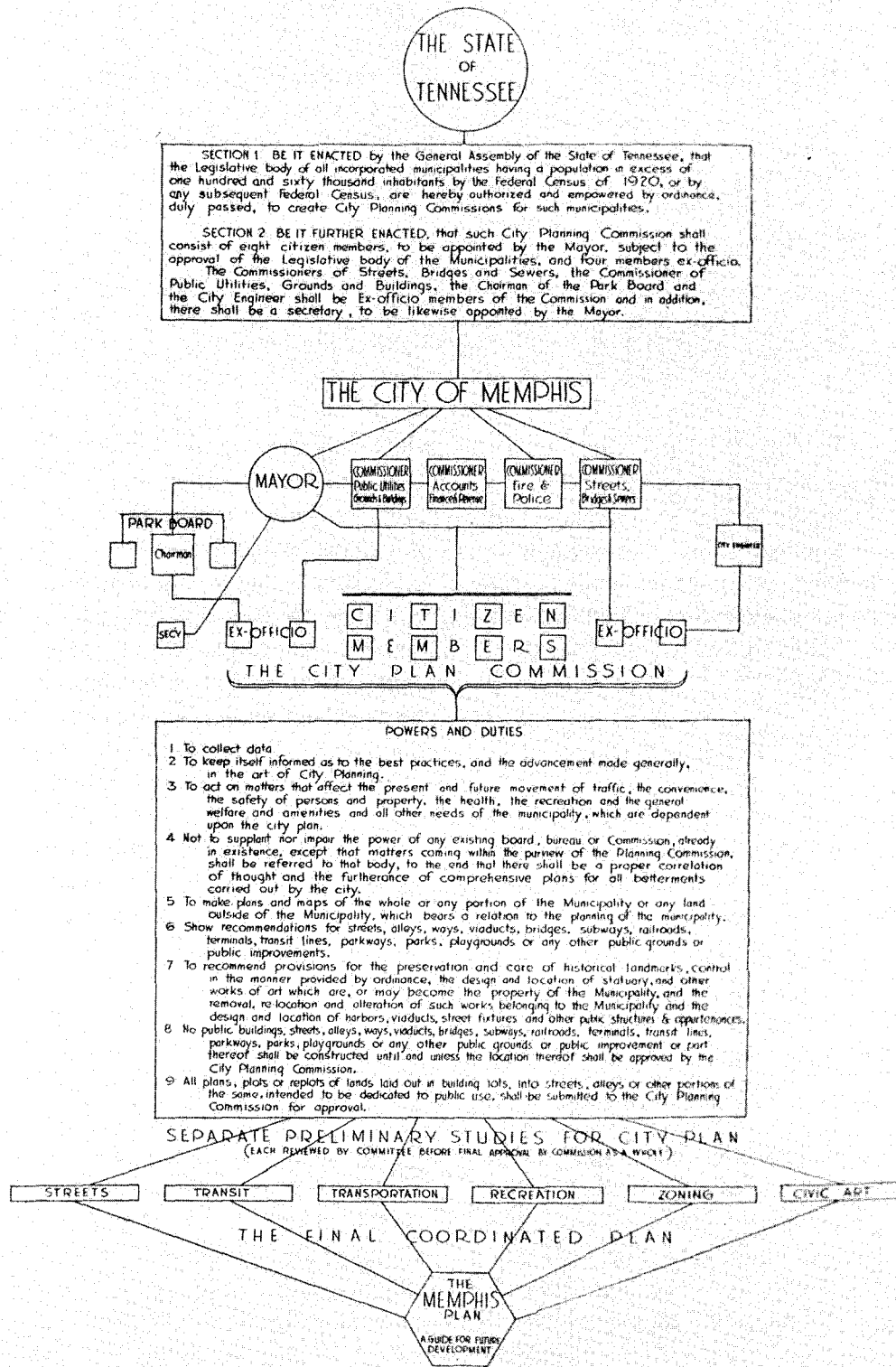
Yet, the city is an economic entity. If its people did not provide goods or services for people living beyond it, the city would not be there. The more goods and services a city provides, the larger it will be.

Equally, the city is a social entity. It enables specialization of human activity. It permits people to join together to provide human services. The larger the city, the greater the specialization, the wider the variety of services and the greater

the complexity of the organizations. Some cities represent an inherent specialization, such as state capitals, university cities, or natural resource cities.

When we go to introduce a system into the physical planning of a city, as Harland Bartholomew did, we deal with a second stage--the result of an economic condition or a social activity. In the United States we do not plan our economy or our social system, although we may modify them here and there. When we plan for the physical city, we plan for the results of economic or social conditions over which we have no control at all and which we probably would not plan for even if we thought we could. This is the first problem with introducing system or "science" into city planning.

The second problem is caused by time. During the years I was with Harland Bartholomew and Associates, comprehensive plans were prepared for about 550 cities. You cannot, or at least we thought that you could not, plan a city for "tomorrow." (Tomorrow might never come.) We used a 20-to-30-year time period into the future and would make a plan for the city as we imagined or hoped it might be at the end of the period. The plan was drawn on a map and, even when it followed Daniel Burnham's injunction against making



23 Basic Theory of City Planning summarized, from the Memphis, Tennessee Comprehensive Plan of 1920.

"little plans; they have no magic to stir men's blood," (2) was still a static, end-state, picture. No matter how frequently revised or how vague or "flexible" the presentation (3), no such plan could possibly reflect how the economic and social changes of a free society would impinge on it. Sometimes it would seem to me that the harder we worked to study and anticipate the economic and social changes that these plans should reflect, the more likely we were to be wrong.

### **The Approach to the System**

Harland Bartholomew was fully aware of these vicious land mines in the road to the planned city. He approached by a divide-and-conquer system, by dividing the content into components, originally but six and later as many as twenty. For each component, such as land use, streets, schools, sewer, water, he developed:

1. Principles and standards (or goals),
2. Standard surveys of existing conditions,
3. Methodology for estimating future needs,
4. A procedure to apply the principles and standards, the surveys of existing conditions and the estimates of the future needs to the design of the long-range plan for the component,
5. A system to apply available effectuation measures to the plan (or to invent new ones) to demonstrate the plan's practicality, i.e., that it can be accomplished in the "real world" and that it is not just an idle dream. (4)

### **Principles and Standards**

The statement of principles and standards developed by Harland Bartholomew for the Memphis, Tennessee plan of 1920 is a good example of his approach. This statement was followed in almost all of the Harland Bartholomew and Associates planning work until the late 1930s. (See Appendix B.)

Streets, for example, were first classified as major (of citywide function) or minor (serving only adjacent property). The major streets were further classified as radial (to and from downtown, the "spokes of a wheel"), circumferential or bypass, and cross-town. Major streets of obvious importance or those that carried streetcar lines were made wider. Traffic counts were made to assist in this, although for many years there was little relation between the volume of traffic and the width of the streets proposed. Illustrations included standard cross-sections for the various types of streets proposed.

This approach to street planning was used with little change with two exceptions. The first was the introduction of the "neighborhood unit" theory for the arrangement of residential areas in the late 1930s. (5) This brought a greater relationship between planning of the residential areas and of major streets and schools and parks. At Harland Bartholomew & Associates, we became especially interested in the "neighborhood unit." We abstracted the principles, modified them a bit and developed a numerical "neighborhood quality index," which we would apply to the existing city residential areas. The value of our index to the planner, however, was far outweighed by the adverse public reaction to the publication of such an index, even though

# STREET DESIGN

IN PLANNING NEW STREETS AND RECONSTRUCTING OLD ONES TO MEET REQUIREMENTS OF MODERN TRAFFIC OBSERVE THE FOLLOWING PRINCIPLES.

DEVELOP SYSTEM OF MAJOR STREETS - WIDE DIRECT THOROUGHFARES

RELATE ALL STREETS TO TOPOGRAPHY SO THAT EASY GRADES MAY BE SECURED AND ALL STREET FRONTAGE MAY BE USED

ASSIGN WIDTH TO STREETS ACCORDING TO VOLUME OF TRAFFIC THEY ARE TO BEAR BASE WIDTH ON NUMBER OF LINES OF MOVING AND STANDING VEHICLES ULTIMATELY TO BE ACCOMMODATED.

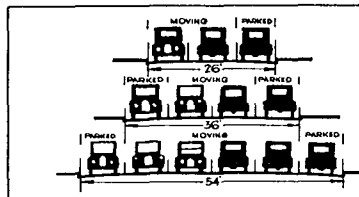
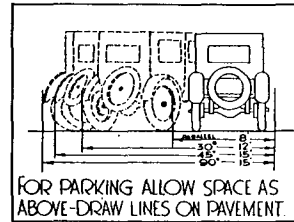
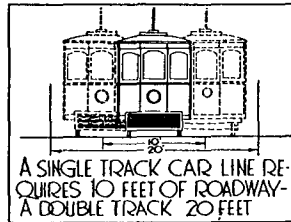
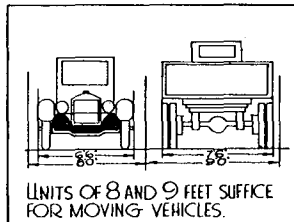
ADJUST ROADWAY AND SIDEWALK PROPORTIONS OF EACH PARTICULAR STREET TO NORMAL DEMANDS.



SEVERAL EXAMPLES ARE SHOWN BELOW TO ILLUSTRATE THE INTERRELATIONSHIP OF STREET AND ROADWAY WIDTHS AND TRAFFIC REGULATIONS.

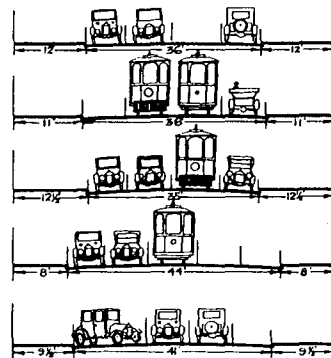
IN ANALYZING THE DIAGRAMS IT SHOULD BE BORNE IN MIND THAT THE "STREET" IS THE ENTIRE SPACE BETWEEN PROPERTY LINES.

## STANDARDS FOR ROADWAY DESIGN AND TRAFFIC REGULATION



A 3 LINE ROADWAY (26 FEET) IS STANDARD FOR QUIET RESIDENTIAL STREETS. A MINOR STREET WITH SOME THROUGH TRAFFIC OR CONSIDERABLE PARKING SHOULD HAVE A 4 LINE ROADWAY (36 FEET) GREATER WIDTH OF ROADWAY IS GENERALLY WASTED UNLESS THE STREET IS MADE A FULL 6 LINE THOROUGHFARE WHICH REQUIRES A 54 FOOT PAVEMENT.

## ECONOMICAL ROADWAYS FOR EXISTING 60 FOOT STREETS.



1. THE NORMAL DEVELOPMENT  
FOUR LINES - PARKING PARALLEL TO CURB OR PROHIBITED ENTIRELY ROADWAY 36 FT SIDEWALKS 12 FT

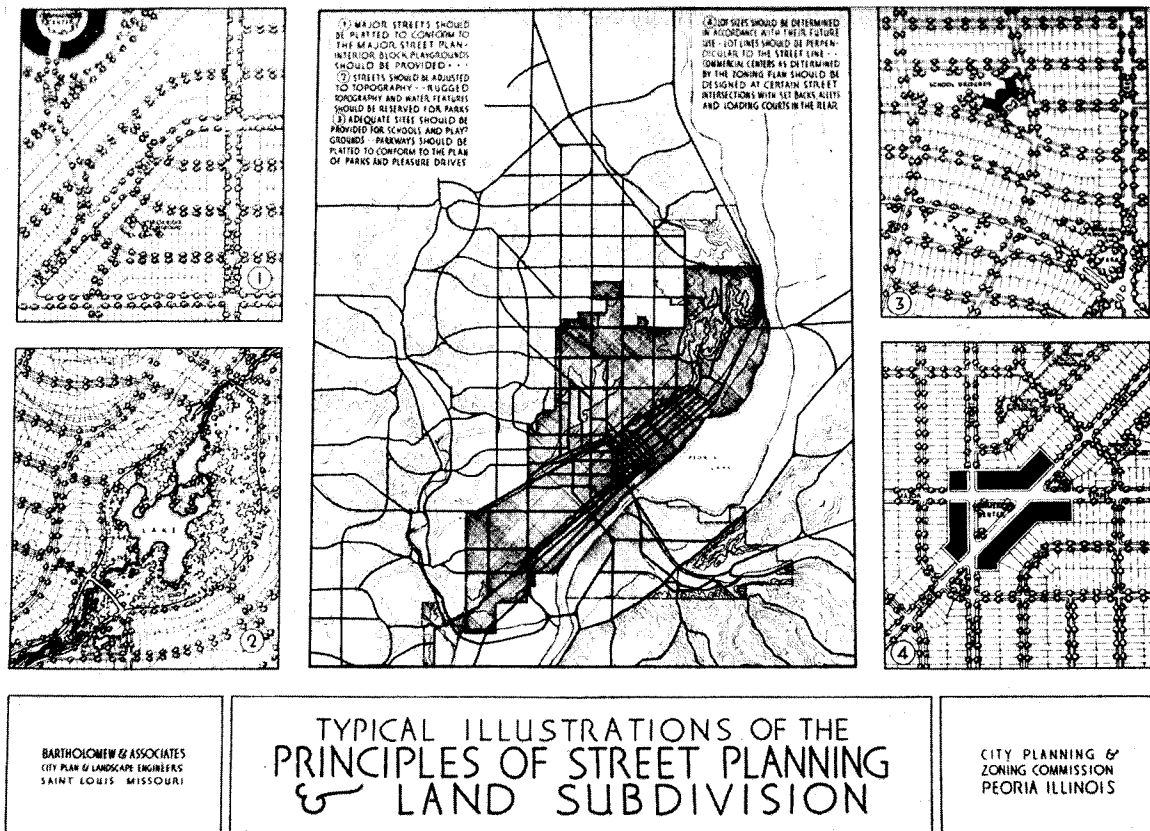
2. WITH DOUBLE CAR TRACK  
FOUR LINES - ALL MOVING - NO PARKING ROADWAY 38 FEET, SIDEWALKS 11 FEET EACH

3. AS ABOVE ONE TRACK REMOVED  
ONE WAY STREET - TWO LINES MOVING - PARALLEL PARKING ON EACH SIDE ROADWAY 35 FEET, SIDEWALKS 12 1/2 FEET

4. SINGLE CAR TRACK IN CENTER  
FIVE LINES TWO STANDING PARALLEL TO CURB - THREE MOVING ROADWAY 44 FEET, SIDEWALKS, 8 FEET

5. VARIATION OF NUMBER ONE  
ONE LINE PARKED AT 45° ONE LINE PARALLEL - TWO MOVING ROADWAY 41 FEET, SIDEWALKS 9 1/2 FEET

EVANSVILLE CITY PLAN COMMISSION.  
HARLAND BARTHOLOMEW  
CITY PLAN ENGINEER - ST. LOUIS, MISSOURI



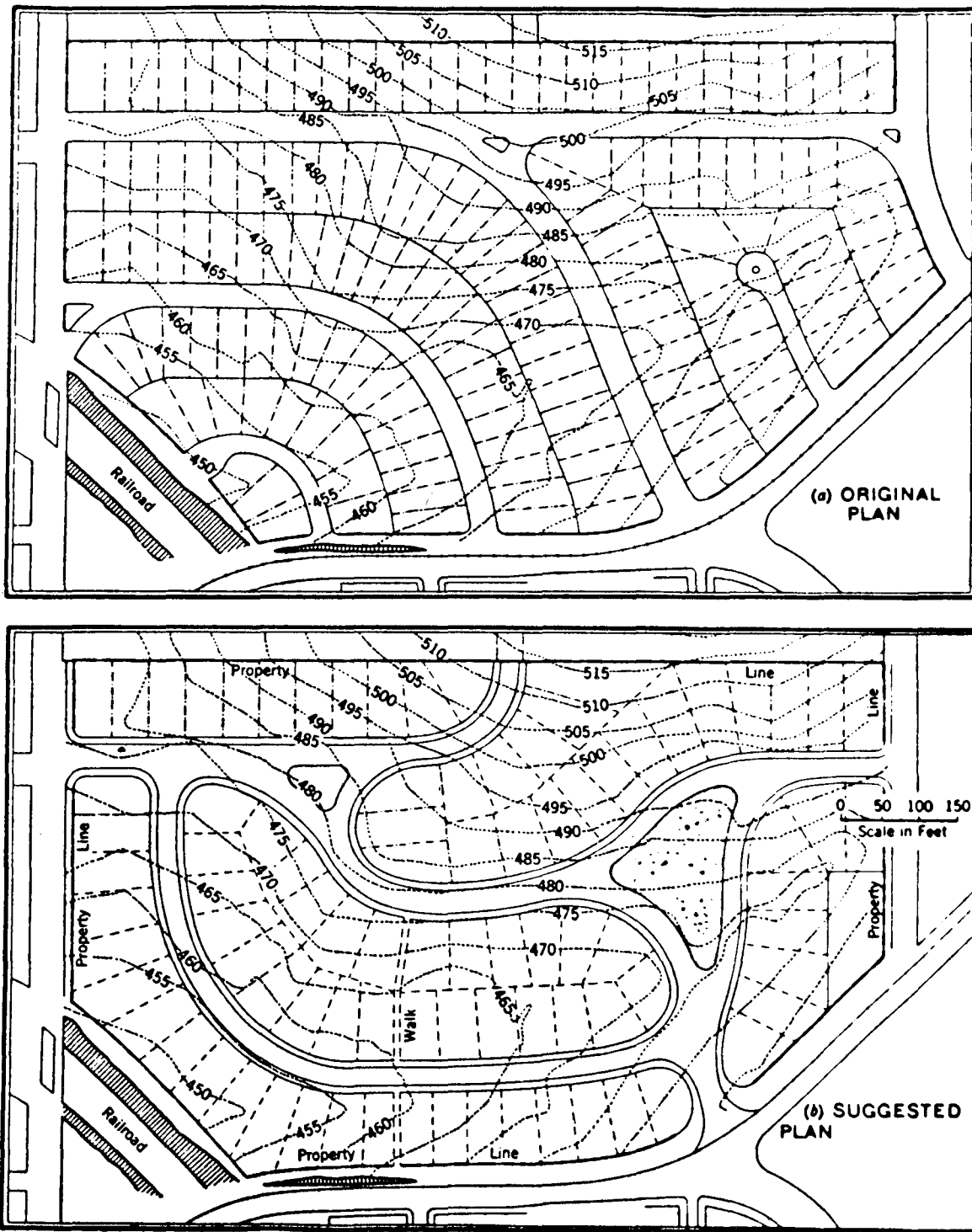
## 25 Principles of Street Planning (from the 1927 Comprehensive Plan of Peoria, Illinois).

our research indicated a close correlation between the index and residential land values. The neighborhood unit principles could best be applied to vacant lands before they were developed. The second exception was the use of a future land use plan as a basis for estimates of future traffic. The volumes of traffic anticipated were then related to the traffic-carrying capacity of the street cross-section to be used, and this determined the proposed width of each part of the major street system. This approach, first developed by Harland Bartholomew and Associates for Lincoln, Nebraska in 1962, is now the basis for the universally-used, street-planning system (6).

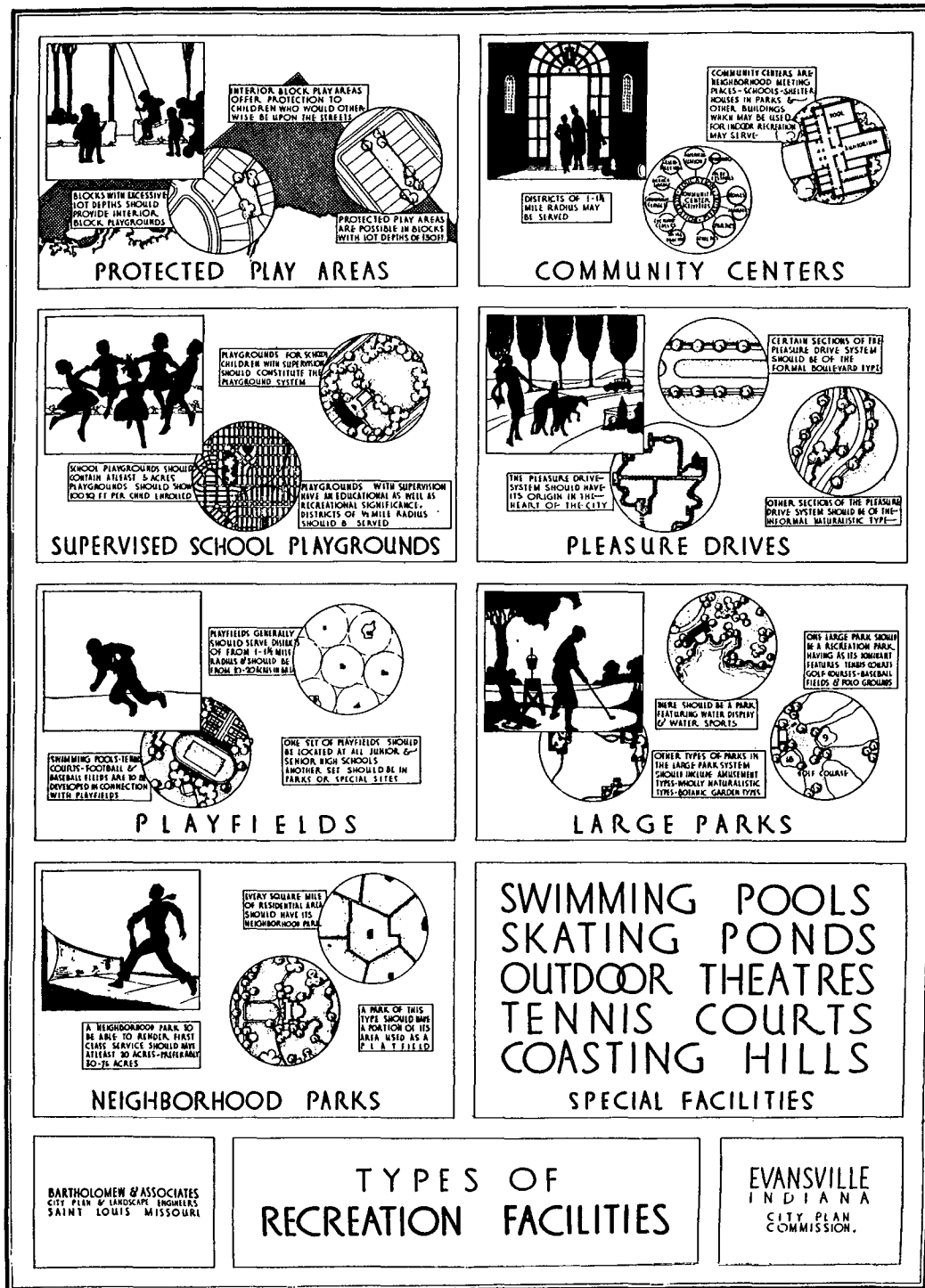
Here another dilemma appears. If we limit our plan to what we know we can do

now with the tools and resources at hand, we will never invent new tools or find new resources. Thus, a good plan will include proposals beyond what can be done now, but at the same time will describe the new tools and resources needed for their accomplishment.

For the public school system, accepted educational planning criteria could be used and were so used. Schools were related to the neighborhoods they served, elementary schools being placed within "walking distance" (one-half mile) of all homes. Locally acceptable standards and customs were observed. The planner made no attempt to impose his ideas on the educator, but rather accepted the educator's ideas and incorporated these into the fabric of the city.

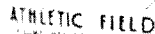


26 Adjustments of Streets to Topography. An illustration from "Land Subdivision," Manual 16 of the American Society of Civil Engineers, written by a committee of ten distinguished planners and engineers, Harland Bartholomew, chairman. Published in 1939, the manual required eight years of preparation.



27 Types of Recreation Facilities (from the Evansville, Indiana Comprehensive Plan of 1922).

HARLAND GASTROLOMEW AND ASSOCIATES  
CITY PLANNERS  
ST. LOUIS, MISSOURI



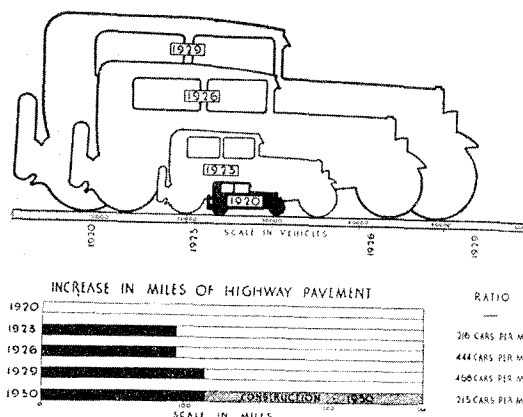
42



Public school systems were almost always independent and frequently bemused at the thought of cooperating in an urban planning program.

For parks, the analysis started with the recreational needs of the various age groups of the population. These were related to the types of parks that should make up a "balanced" system: small parks, neighborhood parks, large parks, athletic fields and parkways. Park and school proposals were carefully interrelated. An "accepted standard" of one acre of park for each 100 persons was an objective for the park system. Park planning principles first outlined by Harland Bartholomew in the early 1920s are still very much in use today with one addition, that of the recreation interest/participation survey, which I added in the later 1960s based on the work of the national Outdoor Recreation Resources Review Commission. (7) Similar standards were outlined for transit, for railroads, for public buildings, and other components of the physical city.

When comprehensive plans were first prepared in the early 1920s, there were no similar standards for land use. It was not until the latter part of the decade that the relationship between land use and population was discovered. Nor was it known that several urban land uses--commerce, industry, and multiple dwellings, for example--occupied so small a part of the urban area. In the 1930s, plans began to include studies of population distribution and density. Principles were outlined to guide the preparation of plans, illustrating what was deemed to be the optimum distribution and density of future population, an essential step in the preparation of the future land use plans. Future land use plans, however, were not prepared until the mid-1940s. Until that time, the zoning map was



## INCREASE IN MOTOR VEHICLE REGISTRATION & MILES OF HARD SURFACED HIGHWAYS IN SAINT LOUIS COUNTY - MISSOURI

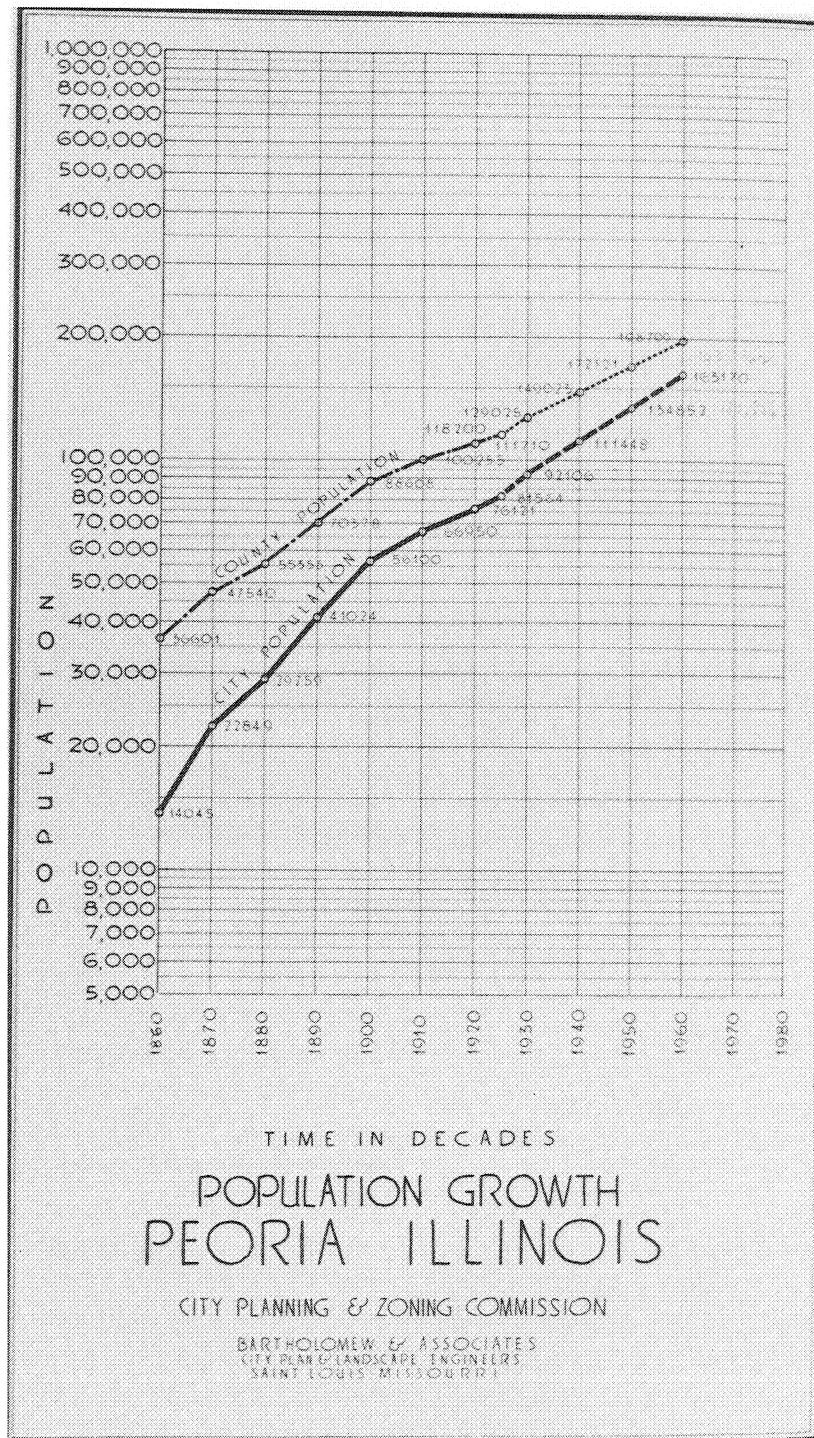
SAINT LOUIS  
COUNTY COURT

BARTHOLOMEW & ASSOCIATES  
CITY PLANNING & LANDSCAPE ENGINEERS  
SAINT LOUIS - MISSOURI

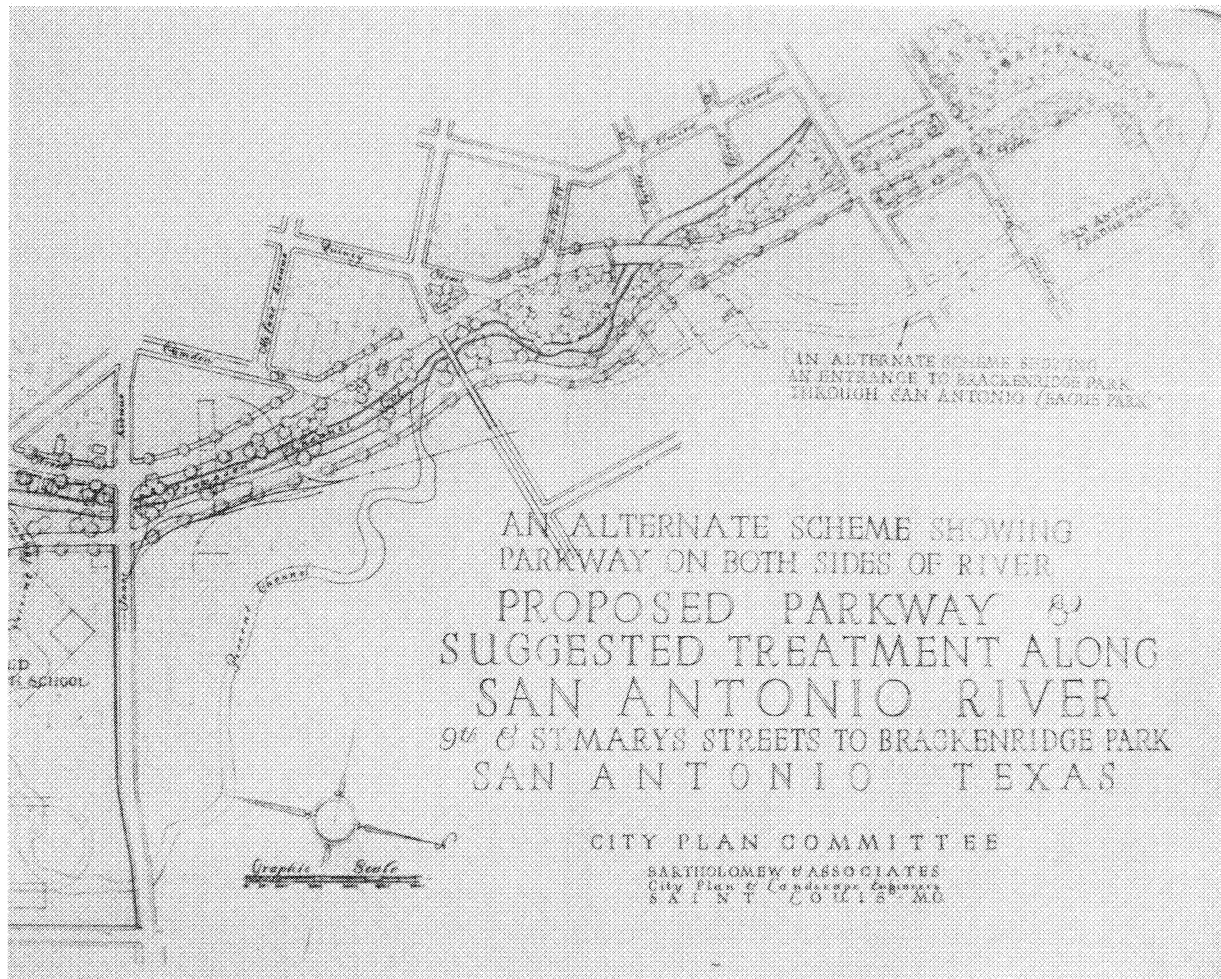
29 Growth in automobile registration and road mileage is compared in this illustration from the Saint Louis County Highway Plan of 1928.

the future land use plan. Alfred Bettmann, chairman of the Cincinnati Plan Commission, would open public hearings on proposals for zoning amendments with the statement: "Cincinnati has an official comprehensive land use plan; it is the zoning map." What a shock this would be to the current St. Louis County Planning Commission, which is accustomed to amending its zoning regulations about 800 times a year!

Harland Bartholomew developed the systematic approach to planning consisting of the outlining of these "principles and standards" and the application of these to existing conditions and to estimates of future needs. By taking all of the principles and standards together, it would have been possible to describe (and to draw a diagram of) the "perfect city" as he saw it.



30 Anticipated future growth provided the basis for estimates of future needs for land use, schools, parks, streets, etc. This chart for Peoria's Comprehensive Plan of 1927 is the start of this process. A slender reed to carry so heavy a burden.

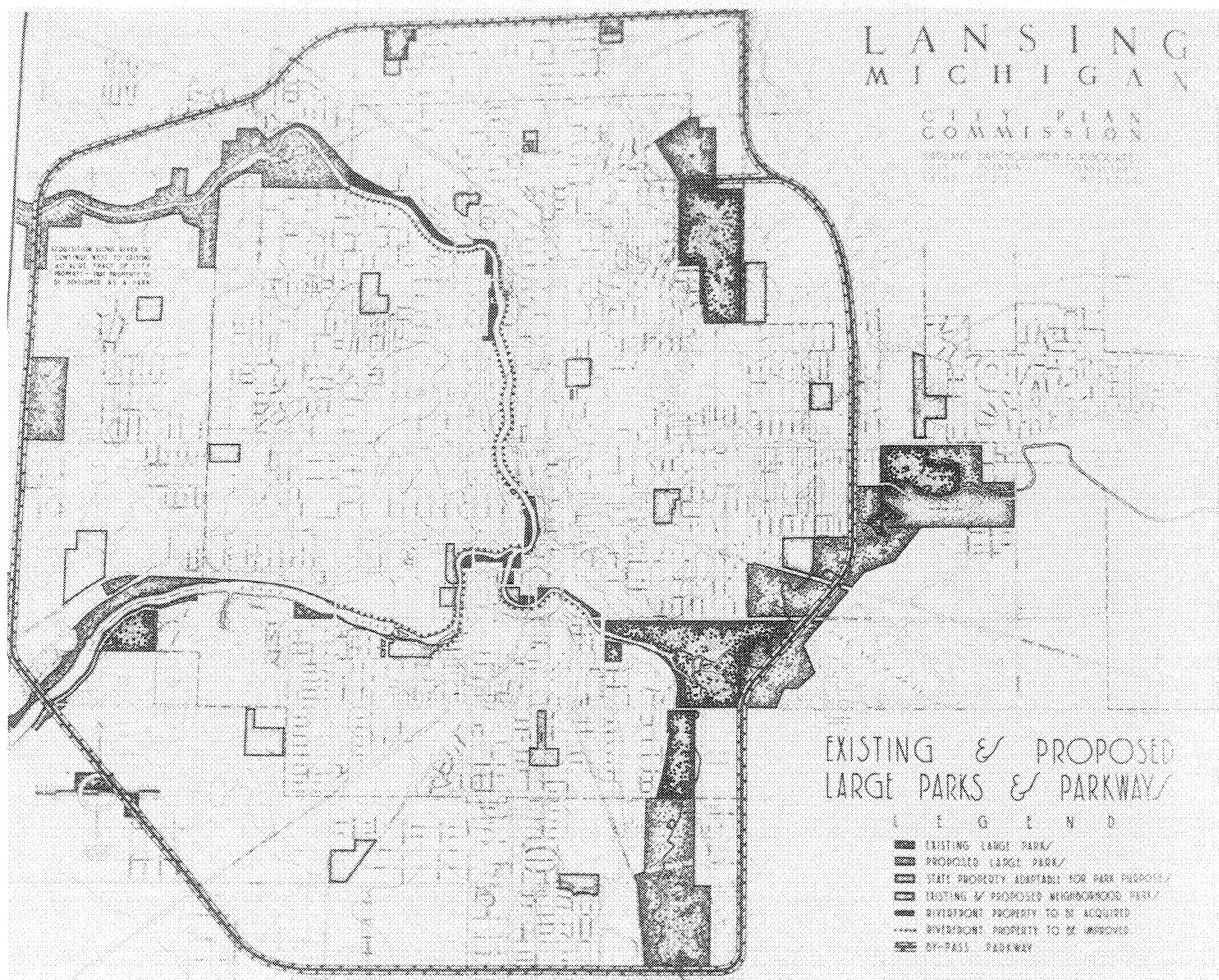


31 Many good local ideas, projects and proposals were "picked up" and incorporated into the comprehensive plans. A dramatic example was provided by the San Antonio River Parkway and the now-famous "River Walk," integral parts of the Comprehensive Plan of 1930 for San Antonio.

When the principles and standards were applied in the harsh reality, however, they did not fit the existing city very well at all. If the city plan was to be at all practical and realistic, numerous compromises had to be made. Not so many compromises were necessary, however, when the principles were applied to vacant or agricultural areas into which the city was expected to grow. Here the only constraints would be those imposed by topography, previously located main highways and railroads, the pattern

of land ownership, and similar factors.

Buried in the various principles and standards were startling, if not radical, ideas, such as that a city should direct its growth into a more balanced pattern around its central business district, for example. Implicit in all of this was the principle that it was the city government (i.e., the people of the city), not the real estate speculator, that should determine the pattern and arrangement of the urban area, a principle indeed honored much more "in the breach



32 It does not require much imagination to propose that a city have parks along a river, much less so lovely a river as the Grand River as it passes through Lansing, Michigan. Yet Lansing's Plan Commission was so inspired by the proposal that members arranged gifts of most such property before the report was published.

than in the observance."

### Surveys of Existing Conditions

The second step in the systematic approach was to survey existing conditions. Here again, a standardized approach was used. This was important for two reasons:

First, if each city was studied in the same way and by the same process, comparative data would be obtained, differences revealed, and particular characteristics of an

individual city would become apparent.

Second, as a practical matter, preparation of these surveys was the most expensive part of any planning program. Cost estimates for preparing standard surveys were more reliable. Surveys could be made more cheaply. Also, by repeating standardized surveys over a time period, changes in a city could be accurately observed. Lower costs and more reliable fee estimates were important advantages. In the early years, few clients had the

knowledge of experience to question this procedure.

One of the earliest papers written by Harland Bartholomew described techniques to be used in making traffic counts. (8) One of the most important, difficult, and expensive surveys was that of land use described more fully in Chapter VII.

### **Estimates of Future Needs**

An inescapable problem inherent in urban planning is the necessity for a plan to look ahead. No one, of course, can foresee the future and if anyone could, he would use his time far more profitably by speculating in the stock market, for example, rather than in practicing urban planning. The basic requirement was a general concept of the approximate size of the future city. One of the best was the opening line in one of our planning reports: "It is the judgment of the planning commission that Roswell should be planned for 40,000 people". (9) That was in 1946; in 1980 the actual population was 39,676! From its number of inhabitants, the planning system of Bartholomew would allow you to determine the land area to be occupied; the areas of the different land uses such as industry, apartments or parks; the number of automobiles; and the number of elementary schools. All of this enabled the planner to produce a city plan realistically related to an estimate of the future size of the city.

This systematic approach of Bartholomew depended, to some extent, on the accuracy of the estimate of future growth. These were made with some care. Estimates of future national, regional, or state population growth were used as a basis. Estimates of employment trends and appraisals of probable future employment by category were prepared. Natural increases and in-

and-out migration were examined. Some estimates were quite accurate; many were not. Sometimes it seemed to some of us that the accuracy of the estimate was in inverse proportion to the care or "sophistication" used in making it. Few were as close as that of Roswell, for example.

Opponents of a plan or of the planning process frequently used the inaccuracies in these estimates of future population as a means to discredit the entire system. They are a point of vulnerability in the system. Despite the care used, they would go wrong. No one can foresee the future. Yet, they were an inescapable part of the system.

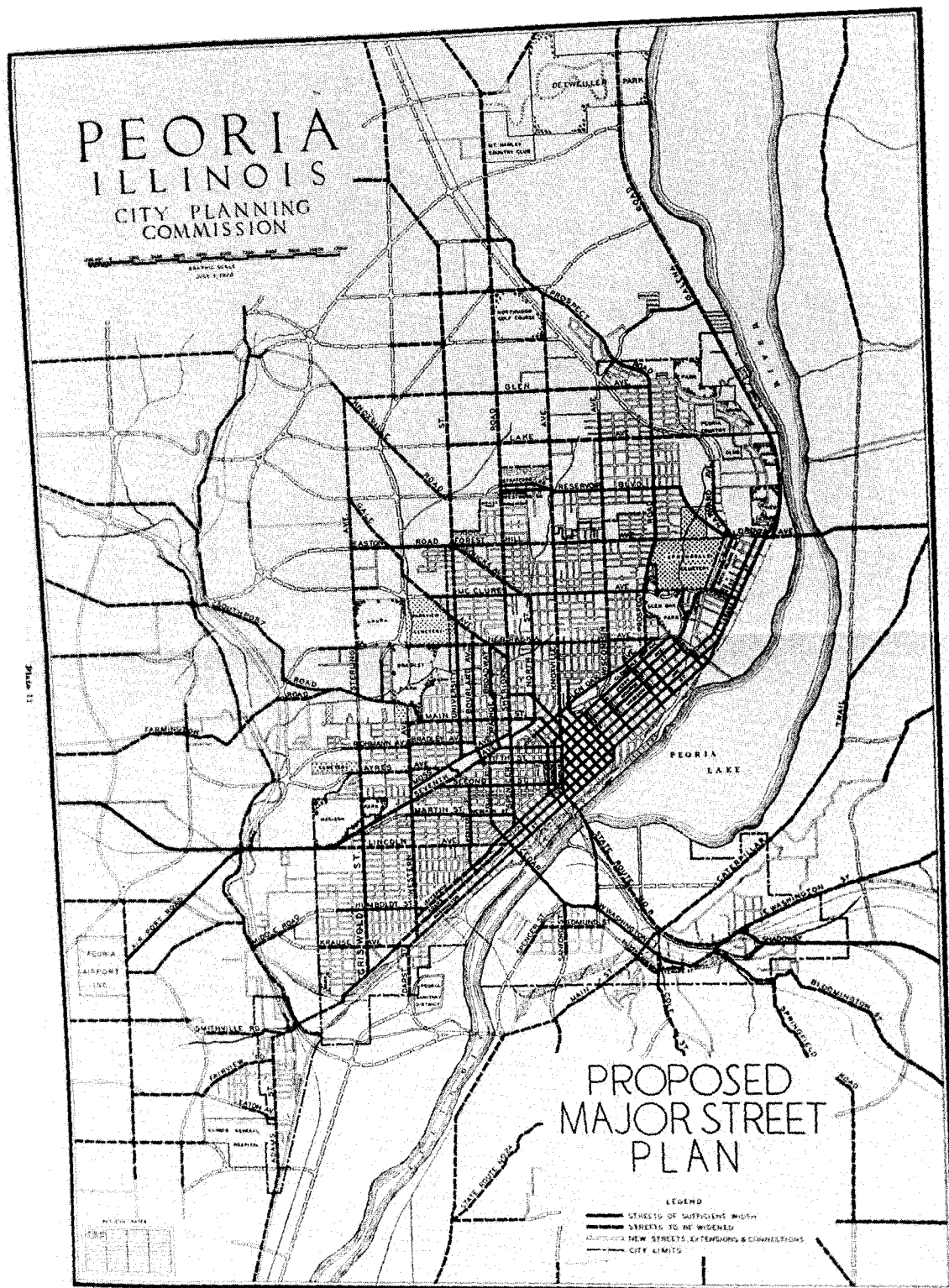
### **Proposals**

The principles and standards could be applied to the existing conditions and the estimates of future needs to produce proposals--plans themselves. At this point, the planner leaves the realms of theory, surveys, and statistical forecasts and enters those of engineering design and site planning.

In the development of the plan for Vancouver, British Columbia, there was a considerable controversy over the location of a new bridge over the Fraser River. Real estate interests representing different parts of the city vied for the bridge, as the location would influence land values. The river crossed an alluvial plain (which it had created) and soil conditions were uncertain. Borings were made at the half dozen or so possible locations. These demonstrated that there was only one practical location for so large a bridge. The matter was settled. Subsoil conditions can affect locations of large buildings such as even a high school.

Adaptabilities of different parts of a community for different uses are not the





33 Major Street Plan, Peoria, Illinois (from the 1927 Comprehensive Plan of Peoria, Illinois).

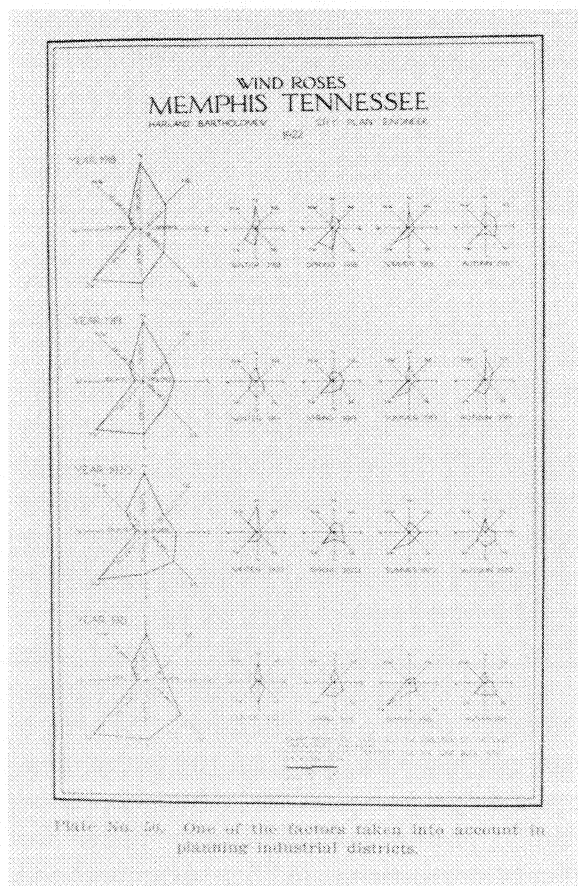
same. Geology, climate, wind directions, drainage, vegetation, and rainfall all affect how land should be used. Naturally scenic areas, historic, and archaeological sites should all be preserved. Floodplains should not be built upon. The landscape architect is needed. Industrial uses have unique land requirements and many cities have closed the door on their future by allowing their best potential industrial sites to be used for other purposes. A knowledge of the land on and below the surface must precede preparation of a land use plan.

This does not imply a breakdown in

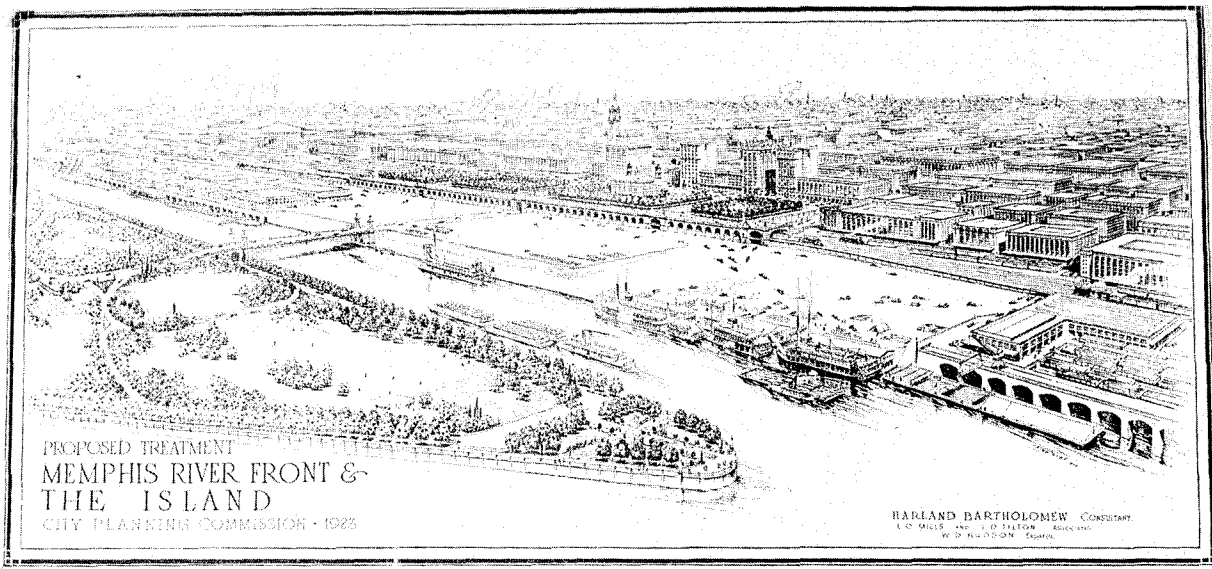
the system or the systematic approach. If information would be gathered, a land use plan could be prepared by a computer. Or, more interestingly, a computer could generate several plans and we might choose from among them.

## Effectuation

Preparation of a city plan or embarkation on a planning program are undertaken for the sole purpose of guiding the growth of the city. There are numerous measures and programs that have been devised to carry out a city plan, many of which are described in the following chapter. These range from zoning, subdivision regulations, and housing ordinances to assessment programs, capital expenditure programs, impact fees, and tax exemptions. Should the planner be instructed not to plan anything that cannot be carried out with the means at hand? No, because every one of the "tools" that we use to carry out a plan came because of a need that was discovered and measured in a planning program. Under our flexible government system, we can adapt, modify, discard, and invent new tools to use to build the city. The plan should be "realistic and practical;" it need not be limited to just the tools at hand; it does need a bit of "magic to stir men's blood." (10) However, the planning process does not have to be directed toward noble ends.



**34** Climate should affect the city plan. This was usually just described, implied, or "understood" (or ignored). However, in Memphis, some aspects were portrayed, as this illustration from the 1920 Plan discloses.



35 Riverfronts and civic centers provided opportunities for dramatic and inspiring proposals and concepts. When this was encountered, as in the Memphis Comprehensive Plan of 1920, the "city beautiful" movement reentered the picture!

## THE "COMPREHENSIVE" PLAN

The systematic approach was designed by Harland Bartholomew for the preparation of comprehensive plans. What was meant by "comprehensive"? In general, Harland Bartholomew meant two things:

1. The city plan was complete. It included all of the major elements of the physical city--land use, streets, transit, transportation, utilities, schools, parks, and public buildings. As time went on, the list became longer. A plan for one or two elements was but a "partial plan."
2. The city plan included the entire urban area, preferably the entire future area of urbanization. Where this was not possible, such as in Kansas City where the urban area was divided by a state line or in Detroit by an international boundary, one gave as much consideration as possible to adjacent areas in other jurisdictions. Where a

suburb was being planned, there were other considerations.

Irregular and haphazard boundaries are characteristic of the usual suburb. Needed here was a regional or metropolitan plan for the entire community. Planning for the suburb could then be fitted into the larger picture and the essential comprehensiveness preserved. This would work just fine unless there was a disagreement between the suburb and the regional planning agency on an important subject, such as land use or a highway location, in which event the suburb's plan might end up being more parochial than comprehensive. Where a plan was made for less than the entire area, it was a "project plan" or a "neighborhood plan." Most comprehensive plans for suburbs are little more than neighborhood plans, or a group of neighborhood plans.

In 1917, the American Institute of Architects published a survey of the status of city planning by its committee on city





**36** Because of the expense of color printing at the time, early comprehensive plans seldom attempted to show all of the proposals on one map. An exception was the Wichita, Kansas Comprehensive Plan of 1922.

planning. (11) The survey is unusually comprehensive and describes some 233 cities and their planning programs. Virtually all of these are project plans. Some are partial plans. Not even the Newark program is

presented as a real comprehensive plan.

This point can perhaps best be made by contrasting Harland Bartholomew with Robert Moses. Bartholomew's approach was long-range, comprehensive, and



37 A common feature of the Comprehensive City Plans made in the 1920's was a recommended grouping of public buildings, or "Civic Center" within or next to the central business district. These were a means of improving the functioning and adding to the beauty of the city's central area. There were many such proposals. The plan shown here, from the Wichita Plan of 1922 is a typical example.

idealistic. Moses's was short-range, pragmatic, and project rather than system oriented. With both prominent in a similar, if not the same field, it is no wonder that they did not get along when their approaches were so different.

I was in Bartholomew's office one day reviewing some report when the telephone rang. HB said, "Yes, I will talk with Mr. Moses." After a few formalities, Bartholomew said, "You can't expect me to give you other than an off-hand, off-the-cuff, reaction, but if you accept that for what it is, then go ahead." There was then a long period when Moses was either explaining something or reading something

over the telephone. Bartholomew said, "Mr. Moses, as I understand those regulations, they could be of interest only to the angels or the aviators. I don't think they are of any real use to anyone else."

After a few pleasantries the conversation ended and Harland turned to me and said, "That was Robert Moses in New York. He wanted to know what to do about some proposed zoning changes requiring high buildings to be set back. Sorry for the interruption." Differences in point of view did not preclude communication between the two.

It was in reaction to so much "project" planning, such as what Moses did, and to

his experiences with "consulting" in 1917 and 1918 that Harland Bartholomew decided to form a private firm in 1919 whose main, if not sole, purpose was to prepare comprehensive city plans.

In 1961, Harland Bartholomew said:

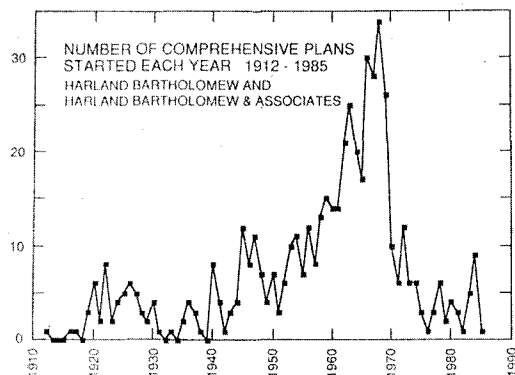
*. . . my interest in city planning, beginning with the Newark work, was to produce for every city a true comprehensive plan. This feeling has so dominated my thinking that my family have jokingly remarked on numerous occasions that I should have a middle name, i.e., "C" for Comprehensive. This has seemed to me to be the basic essential in this field and my work was always oriented in this direction . . . I still feel very strongly on this point. I feel that cities are woefully lacking in comprehensive city plans . . .*

*I am as keenly interested as most people in many of the planning studies that are being produced today for unit areas, for cluster development and such. I am far more interested, however, in whether there is a basic comprehensive plan which furnished the framework and the substance within which these individual designs can be made. (12)*

The comprehensive plan is the heart of the planning process. You cannot have planning without a comprehensive plan. If there is a plan, there is hope for the city. Without a plan, there is no hope. The comprehensive plan is the foundation of the process. The first purpose of the "science" or "system" of planning is to produce the comprehensive plan.

### Number of Plans Made

Harland Bartholomew and Associates set about to follow these injunctions. The firm produced 563 comprehensive plans, an average of eight per year, during the 65 years between 1919 and 1984. (See Appendix C for an alphabetical listing of



38 The function of Harland Bartholomew and Associates according to its founder, was to prepare Comprehensive City Plans. The demand for these was strong in the 1920's, and then almost disappeared for part of the Great Depression. The peak activity was during the 1960's when federal aid was available under the "701" Program. By 1970, the number started each year returned to about the same level as the 1940-1960 period.

plans prepared and Appendix D for a listing by year the work was started.)

Between 1919 and 1935, 56 were prepared - three per year;  
Between 1935 and 1970, 380 were prepared - eleven per year; and  
Between 1970 and 1985, 79 were prepared - five per year.

The typical comprehensive plan requires two to three years to prepare. Consequently, there were, on an average, between four and thirty of these being worked on at any time. However, as the firm usually had three to

five different offices, the planning work was not directed from any one single place and the preparation of the plan very largely took place in the city being planned. Harland Bartholomew and Associates was a firm of city planners. We made comprehensive plans and many of them. We were not "consultants." That is, we were not people who held some other person's hands and advised him while he made the comprehensive plan.

### Content of Plans

The 563 comprehensive plans were for 404 different agencies. Eighty-nine had their plans brought up-to-date at intervals of 10 to 15 years--some as many as five or six times. One out of every five clients invited the firm back for a revision of the comprehensive plan.

The statement of the "principles of planning" (see Appendix B) in the 1920 plan of Memphis, Tennessee listed six elements of the comprehensive plan:

1. Major streets
2. Zoning (which included land use)
3. Transit
4. Transportation
5. Recreation (parks and schools)
6. Civic Art (public buildings, civic center, beautification, etc.)

An analysis was made of the content of 71 representative comprehensive plans made by Harland Bartholomew (and Harland Bartholomew and Associates) between 1916 (Newark) and 1984 (Hannibal, Missouri). In making this analysis, the content of a comprehensive plan was divided into five categories and 25 elements as follows:

### Background Studies

- Social background
- Economic background
- Site conditions, such as topography, geology, drainage, air and water quality, and climate

### Basics

- Population forecasts
- Land use - land use plan
- Population distribution and density
- Development policy

### Facilities

- Streets
- Parking - frequently a part of a study of the central business district
- Public utilities - sewer, water, drainage
- Schools
- Parks
- Public buildings - again, frequently a part of central business district plans
- Transit
- Railroads
- Airports/harbors

### Guides

- Housing/urban renewal
- Neighborhood plans
- Central business district plans
- City appearance/urban design ("Civic Art" in the 1920 Memphis plan)
- Energy conservation

### Measures

- Zoning/housing/subdivision regulations
- Architectural control
- Capital expenditure program
- Administration/management (of planning)

This analysis immediately dispels any criticisms of Harland Bartholomew and

Harland Bartholomew and Associates as a maker of "package plans." Hardly any two of the comprehensive plans have the same content; nor, if examined in detail, do the plans give the various elements the same emphasis. Instead, each has been tailored to the particular circumstances of the individual city.

Almost every plan has a street element and a zoning (land use) element. You could say that every planner at Harland Bartholomew and Associates had to know about streets and zoning, and this would be true.

One or more of the background elements are found in almost every plan although these are emphasized more in the 1940s, the late 1960s, and the early 1970s. The basic elements are all well represented throughout, with no particular trend for exclusion or inclusion.

Facilities included show interesting trends. Public utilities were not included very often until the 1960s. Parking became a concern after 1940. After 1960 less attention, and sometimes none at all, was given to transit and railroads.

Housing and urban renewal were early considerations, disappeared during the 1920s and early 1930s, and then became an integral element of the planning programs. Zoning is always a part of the plan, as are capital expenditure programs and administrative management studies after 1940.

### **The Comprehensive Plan as a Unified Design**

The planning system, as devised by Harland Bartholomew, was applied to each element of the comprehensive plan as it was studied, in turn, in accordance with a schedule worked out with the client--

the plan commission, but sometimes the director of planning or the city manager. While most of the background and basic elements would be undertaken first, the schedule of the other elements was adjusted to real (or imagined) crises affecting the city. The city planners could not go off for a year or two and then bring in a fully blown, mature plan. To get the requisite public participation (see next chapter), it was necessary to develop the plan in a step-by-step process, usually one element at a time.

Norman Johnston, in his study of the plans made prior to 1948, discovered that this process left something to be desired in so far as producing a coordinated design for the city. And this was true. If schools were planned first, the street plan might be adjusted to fit the schools and vice versa. An intensive study of the railroads might indicate that two lines might be consolidated and the one abandoned used for an express highway, and this could cause a severe reexamination of the major street plan proposed several months before. However, everything could not be done at once. We finally overcame this difficulty by making a rough draft of a comprehensive plan fairly early in the schedule and then adjusting this as the work proceeded. Also of some assistance was the practice of making a draft of the final city plan map as soon as possible after work had started.

The result was to apply Bartholomew's system or science of planning to the given community and, with the participation of the community, to produce a comprehensive plan that it could use as its guide as far into the future as possible. The system was not complex, but simple and logical.

Proposals of the plans were seldom startling or imaginative, but rather likely to be obvious, or to be ideas that had been put

	12	16	17	19	19	20	22	22	23	24	25	26	27	28	29	30	30	31	36	36	36	37	38	40	40	42	43	43	44	45	46	48	49		
	Newark NJ	Belleville NJ	St. Louis MO	Omaha NE	East St. Louis IL	Memphis TN	Wichita KS	Kenosha WI	Schneectady NY	Cedar Rapids IA	Des Moines IA	Knoxville TN	Louisville KY	Peoria IL	Springfield MO	Tulsa OK	Binghamton NY	Stockton CA	Troy OH	Kansas City KS	Decatur IL	Lansing MI	Mason City IA	Des Moines IA	St. Petersburg FL	Memphis TN	Richmond VA	Dallas TX	Newark NJ	Oklahoma City OK	Vancouver BC	Baton Rouge LA	Santa Fe NM	District of Columbia	Battle Creek MI
PLAN INCLUDED:																																			
BACKGROUND																																			
Social																																			
Economic																																			
Topo-Geology																																			
BASICS																																			
Population forecast																																			
Land use plan																																			
Population distribution																																			
Development policy																																			
FACILITIES																																			
Streets																																			
Parking																																			
Public utilities																																			
Schools																																			
Parks																																			
Public buildings																																			
Transit																																			
Railroads																																			
Airports • harbors																																			
GUIDES																																			
Housing • urban renewal																																			
Neighborhood plans																																			
Central business district																																			
Appearance • urban design																																			
Energy conservation																																			
MEASURES																																			
Zoning • subdivision																																			
Architectural control																																			
Improvement program																																			
Administration																																			

## CONTENT OF REPRESENTATIVE COMPREHENSIVE PLANS

Harland Bartholomew and  
Harland Bartholomew & Associates  
1912 - 1984

39 A favorite theme of critics of Harland Bartholomew and Associates was that the firm prepared "package plans". Not so. Each was carefully adapted to the individual community with the content becoming more complex and sophisticated as time went on.

	1950	1960	1970	1980	
50	Lincoln NE				
51	Toledo OH				
52	Corpus Christi TX				
53	Memphis TN				
54	Columbus OH				
55	Cloquet MN				
56	Charlottesville VA				
59	Lincoln NE				
59	St. Louis Co. MO				
60	Leavenworth KS				
60	Muncie IN				
61	Tyler TX				
63	Oxford OH				
64	Appleton WI				
66	Kenosha WI				
67	Waco TX				
68	Minot ND				
69	Kent Co. DE				
69	Sioux Falls SD				
69	Racine WI				
70	Hot Springs AR				
71	St. Charles MO				
72	Boone Co. MO				
73	Beaver Dam WI				
73	Appleton WI				
73	Tiffin OH				
74	Effingham IL				
75	King William Co. VA				
78	Jefferson City MO				
79	Port Aransas TX				
80	St. Cloud MN				
80	Williamsburg VA				
82	Waco TX				
83	Washington MO				
84	Allen TX				
84	Hannibal MO				
					PLAN INCLUDED:
					BACKGROUND
					Social
					Economic
					Topo-Geology
					BASICS
					Population forecast
					Land use plan
					Population distribution
					Development policy
					FACILITIES
					Streets
					Parking
					Public utilities
					Schools
					Parks
					Public buildings
					Transit
					Railroads
					Airports • harbors
					GUIDES
					Housing • urban renewal
					Neighborhood plans
					Central business district
					Appearance • urban design
					Energy conservation
					MEASURES
					Zoning • subdivision
					Architectural control
					Improvement program
					Administration

## CONTENT OF REPRESENTATIVE COMPREHENSIVE PLANS

Harland Bartholomew and  
Harland Bartholomew & Associates  
1912 - 1984

forward in the community for many years. Not that many were not controversial and the cause of serious community disagreement. Some controversial proposals would naturally be identified with the firm's or Bartholomew's name, one result of which could be the elimination of the firm from further consideration for planning work in that area. Harland Bartholomew was absolutely fearless, however, in making what he considered sound proposals to solve a community's problems, irrespective of whose foot was stepped on. He would fully back up staff members who got into such situations. This made the firm an exciting place for a professional to work.

Application of an orderly and logical system or science to the preparation of the comprehensive plan was Harland Bartholomew's first and greatest contribution to city planning.

## FOOTNOTES

- III-1 Letter from Harland Bartholomew to Norman Johnston, April 9, 1962
- III-2 See *American City Planning*, Mel Scott, University of California Press, 1969, pages 100-109.
- III-3 See *The Flexible Plan Is No City Plan At All*, Eldridge Lovelace, Journal of the American Institute of Planners, January 1958
- III-4 Almost every planning program undertaken by Harland Bartholomew or Harland Bartholomew & Associates included a section on administration, a capital improvement (public works) program, and, of course, zoning and land subdivision control regulations.
- III-5 See *The Neighborhood Unit*, Clarence Arthur Perry, Regional Survey of New York and its Environs, Volume VII (New York, 1929). Also see *A Neighborhood Scientifically Conceived and Developed*, Robert Whitten, Proceedings of the Tenth National Conference on Housing, page 182.
- III-6 See *American City Planning*, particularly pages 580-587, Mel Scott, University of California Press, 1969
- III-7 See report of the Outdoor Recreation Resources Review Commission (ORRRC), Laurence S. Rockefeller, Chairman, 1962
- III-8 *A Proposed Standard Form For Making Traffic Counts*, Harland Bartholomew, October 1916. Manuscripts in office of Harland Bartholomew & Associates, Inc., St. Louis, Mo.
- III-9 *City Plan*, Roswell, New Mexico, 1946. Manuscript, Olin Library, Washington University, St. Louis, Mo.
- III-10 See *Plan of Chicago*, Daniel Burnham, 1910
- III-11 *City Planning Progress*, American Institute of Architects, 1917.
- III-12 Letter from Harland Bartholomew to Norman Johnston, December 26, 1961

---

*Real results in city planning come after the preparation of a comprehensive city plan. The administration of a city plan must necessarily fall within the jurisdiction of numerous city officials having to do with various classes of public work. Upon the competence and intelligence of those officials necessarily depends the effectiveness of administration of the city plan.*

- Pittsburgh, 1925

*While the preparation of a city plan is an important step toward the development of an efficient and desirable city, the ultimate results will depend upon its proper execution. Municipal officials must have the active support of the general public.*

- Saint Louis, 1932